

**IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
AUSTIN DIVISION**

RADIANT VISION SYSTEMS, LLC,

Plaintiff,

v.

ADMESY B.V.,

Defendant.

CIVIL ACTION NO. 21-1115-DAE

**RADIANT VISION SYSTEMS, LLC'S
RESPONSIVE CLAIM CONSTRUCTION BRIEF**

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I. INTRODUCTION

Admesy's brief makes clear that Admesy is not asking the Court to interpret the claims but to narrow them and import limitations so that Admesy can avoid infringement. For each of the two disputed claim terms, "filter wheel" and "filter assembly," Admesy redefines the plain and ordinary meanings of the terms; reads in limitations not required or even suggested by the claims and specification; misrepresents the file history; cherry-picks extrinsic evidence that is either inconsistent with or does not support its definitional arguments; and ignores basic tenets of claim construction. As discussed previously and below, the Court should reject Admesy's constructions and adopt the plain and ordinary meaning of the claim terms.

Admesy fails to show that the patent restricts the claimed "filter wheel" to "the form of a circle." Admesy argues that some of the claims and the specification describe the filter wheel as configured to hold filters and rotate about a rotational axis, but neither of those functions limits the shape of the filter wheel to a circle. Admesy then improperly attempts to limit the shape of the wheel to an embodiment illustrated in one of the patent's figures, but as Radiant has explained, it is improper to confine the scope of a claim to a specific embodiment described in the specification. *See Radiant's Opening Brief ("Radiant Br.") at 10–11; Phillips v. AWH Corp., 415 F.3d 1303, 1323 (Fed. Cir. 2005) (en banc).* The cited figure shows that a filter wheel *may* be circular, not that it *must* be circular. Admesy further contends that its proposed narrowing is supported by the prosecution history, but it does not point to any clear and unambiguous disavowal by the patentee of non-circular shapes as would be required to limit the claims as Admesy proposes.

Admesy also fails to show that the patent requires that the claimed “filter assembly” include “at least one filter” and parts “that have been fitted together.” These additional unclaimed limitations are not supported by any of the intrinsic or extrinsic evidence that Admesy cites. The claim language does not require that the assembly include a filter—indeed, the patent includes dependent claims that *do* separately specify that the filter assembly carries a filter, and the doctrine of claim differentiation requires an interpretation that gives meaning to those dependent claims. Admesy also argues that the specification teaches that a reflector or mirror may be carried by the filter assembly, but it does not and cannot point to any language in the specification defining a filter assembly to include a filter. As for Admesy’s “fitted together” limitation, the case law and dictionary definitions do not support the proposed narrowing construction.

Radiant respectfully requests the Court reject Admesy’s improper proposed constructions and apply the plain and ordinary meaning of the disputed terms.

II. ARGUMENT

A. The claimed “filter wheel” is not limited to “a frame or disk in the form of a circle.”

The ’652 patent’s claims, specification, and file history do not describe or suggest, much less define, the shape of the filter wheel. The patent describes that the filter wheel holds filters and rotates about an axis, but those functions do not limit the shape of the claimed wheel. A filter wheel is a wheel configured to hold one more filters. No more is required.

Claims. Admesy recites the language of three claims that include the term

“filter wheel” to support its contention that the term “filter wheel” should be limited to “a frame or disk in the form of a circle,” but none of that claim language suggests that the recited “filter wheel” must be in the form of a circle. *See* Admesy’s Opening Brief (“Admesy Br.”) at 17. Admesy’s contention that the claims’ “consistent use of the term ‘filter wheel’ as “configured to rotate about a rotational axis that is generally parallel to the optical path” is inapposite to its conclusion that the term “filter wheel” should be restricted to “a frame or a disk in the form of a circle.” *Id.*; Admesy Br. Ex. A, 8:62–64, 9:55–60, 10:29–31. The claim language is altogether silent regarding the shape of the filter wheel and in no way supports importing Admesy’s desired shape limitations onto the term.

Admesy further appears to argue that a “wheel” is inherently circular in shape. Admesy Br. at 17. But Admesy provides no support or explanation for this faulty assumption. To be sure, a circular shape may be implied for specific types of wheels that functionally require circular structures—for example, vehicle wheels, bicycle wheels, and other wheels that bear a load and facilitate movement across the ground. But the plain meaning of “wheel,” as a jury would understand the term, is not otherwise limited to the form of a circle unless its function requires that structure. Pinwheels, cogwheels, and water wheels are not strictly circular. Prize wheels can be octagonal, decagonal, dodecagonal, or more to match the number of different prizes that can be won by a spin. Steering wheels can take elongated or polygonal forms without losing their identity as a “wheel,” as long as their rotational and functional characteristics remain intact.

The function of a *filter* wheel, as Admesy recognizes in its proposed construction, is to hold one or more filters. That function does not require a circular shape,



and indeed, design or engineering objectives—such as reducing or minimizing weight, material, or occupied space—in any particular case may call for a different, non-circular shape. Indeed, non-circular filter wheels, such as the Thorlabs filter wheel depicted at left, were available from well-known optical component suppliers at

the time of the invention. *See* Nguyen Decl. ¶¶ 2–3, Exs. 1–2. A person of skill in the art would have been aware of such existing filter wheel shapes, or at a minimum, would have recognized that a filter wheel can take a non-circular shape as long as it is configured to hold filters and rotates about an axis.

Specification. Admesy also points to two figures in the patent to argue that the specification “consistently” depicts a circular filter wheel. The first illustration, Figure 3, shows a cross-sectional side view of a filter wheel and its rotational axis, but there is nothing in the illustration to support Admesy’s conclusion that “filter wheel 302 … is shown as a frame or disk in the form of a circle.” Admesy’s Br. at 17–18; Ex. A at Fig. 3. Given its side view, the figure depicts the filter wheel as two rectangles flanking a rotational axis, each rectangle longer along its horizontal length than its vertical width. The filter wheel depicted in Figure 3 could be any shape, such

as a triangle or semi-circle; there is no information in Figure 3 to suggest a circular shape. In addition, although the other illustration (Figure 7B) does depict a circular filter wheel, it would be improper to limit the claims to an illustrated embodiment. *See* Radiant's Br. at 10–11. The mere fact that the specification describes or depicts an embodiment with a circular filter wheel does not require the claims to be so limited. *See Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 906 (Fed. Cir. 2004). Without clear and unambiguous disclaimer or lexicography, courts “do not import limitations into claims from examples or embodiments appearing only in a patent’s written description, even when a specification describes very specific embodiments of the invention or even describes only a single embodiment.” *JVW Enters., Inc. v. Interact Accessories, Inc.*, 424 F.3d 1324, 1335 (Fed. Cir. 2005). The Court should decline Admesy’s call to do so here.

Admesy’s other citations to the specification do no more than describe various functions of the filter wheel also recited in some of the claims. *See* Admesy’s Br. at 18–19 (citing Ex. A, 4:21–28 (describing certain filter wheels as “configured to hold multiple filters,” having “a rotational axis that is generally parallel to the optical path,” and capable of “rotat[ing] about its corresponding rotational axis”); 4:45–47 (describing filter wheel as “carrying one or more filters” and “rotat[ing] about a rotational axis that is generally parallel to the optical path”); 6:11–18 (same)). As discussed above, these functions do not limit the shape of the filter wheel to the form of a circle. Admesy concludes that “there is nothing in the intrinsic record” indicating that the filter wheel is non-circular. Admesy’s Br. at 19; *see also id.* at 17. But there

is also nothing in the intrinsic record that disclaims non-circular shapes or defines the filter wheel as circular, as there must be to justify importing Admesy’s narrowing limitation into the claims. In the absence of clear and unambiguous disclaimer or lexicography, the broader plain meaning of the term controls. *Thorner v. Sony Computer. Entm’t. Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012).

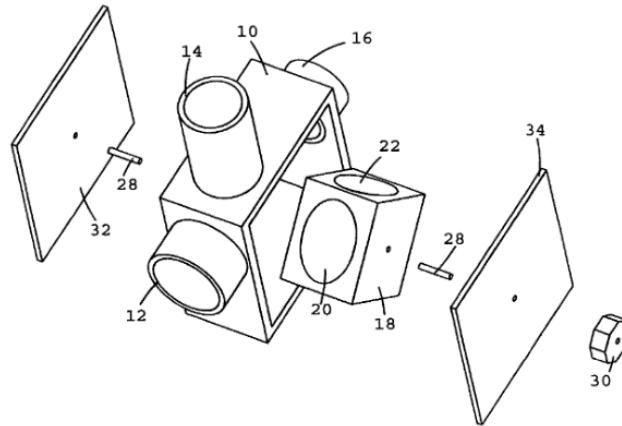
File History. Contrary to Admesy’s assertions, nothing in the prosecution history supports Admesy’s contention that the filter wheel must be structured as a “frame or disk in the form of a circle.” The patentee never used those terms or concepts to distinguish the claimed filter wheel from the prior art. Nor did the patentee disavow designs having non-circular shapes.

Radiant’s prosecution claim amendments did not change the scope of the invention based on a circular form of the filter wheel. During prosecution, Radiant merely rewrote original dependent claims 2 and 15 into independent form to include all of the features of original independent claims 1 and 14, respectively, and then canceled original independent claims 1 and 14. Admesy’s Br. Ex. B at 42–44, 47, 93. Thus, the scopes of claims 2 and 15 did not change via amendment during prosecution. *Id.* Furthermore, Radiant rewrote original dependent claim 22 into independent form to include all of the features of original independent claim 20 and to further clarify that the filter assembly is positioned along the optical axis, and then canceled original independent claim 20. *Id.* at 45, 47, 96. The scope of claim 22 changed only to describe that the filter assembly must be positioned along the optical axis. *Id.* These amendments cannot be considered a statement of disclaimer, much less a “clear

and unmistakable” disavowal of non-circular filter wheels from the scopes of those claims. *3M Innovative Props. Co. v. Tredegar Corp.*, 725 F.3d 1315, 1325 (Fed. Cir. 2013); *Epistar Corp. v. ITC*, 566 F.3d 1321, 1334 (Fed. Cir. 2009) (emphasis added) (“[A] heavy presumption [exists] that claim terms carry their full ordinary and customary meaning, unless [a party] can show the patentee *expressly* relinquished claim scope.”).

Nor does the prosecution history reflect that Radiant distinguished its invention over the prior art based on a circular form of the filter wheel. For example, at no time did Radiant argue that the optical routing subassembly in the Thibault prior art reference cannot be considered a “filter wheel” within the meaning of the claims because of its cube shape. Indeed, Radiant was altogether silent during prosecution regarding the shape of Thibault’s optical routing subassembly and the shape of the claimed filter wheel. Instead, as noted in Radiant’s Interview Summary for the telephone interview that was conducted with the Examiner on January 10, 2013, Radiant (a) discussed proposed amendments to the claims with the Examiner during the January 10th telephone interview that would further clarify “the *arrangement* of the filter assembly *relative to an optical path* or optical axis of the device/system” and (b) then, having reached an agreement with the Examiner during the January 10th telephone interview that such amendments would distinguish the claims over the prior art of record, proceeded to present those amendments in its written response to the

July 19, 2012, Office Action. Admesy's Br. Ex. B at 48. Specifically, as shown in Figure 1 of Thibault (reproduced to the right), Thibault's optical routing subassembly 18 (i.e., the Office Action's cited "filter wheel") does not rotate about a rotational axis that is generally parallel to an optical path that runs generally parallel with and through the inside of the primary tube 12 of Thibault's main housing 10. *Id.* Ex. E, Fig. 1. Rather, Thibault's optical routing subassembly 18 rotates about an axis generally orthogonal to such an optical path. Accordingly, Radiant's claim amendments and written response to the Office Action focused on the arrangement of the filter assembly and, in particular, further clarified that the filter assembly includes a filter wheel "configured to rotate about a rotational axis that is generally parallel to [an] optical path." *Id.* Ex. B at 49–50. None of these statements, amendments, or actions by Radiant relate to the shape of Thibault's optical routing subassembly 18 or the shape of the '652 patent's filter wheel, much less constitute an unambiguous disavowal of non-circular filter wheels.



Admesy's reliance on other prior art cited by the Examiner only weakens its file history argument. That other prior art may have disclosed circular filter wheels detracts from any argument that Radiant amended its claims to overcome Thibault's non-circular "filter wheel"—an amendment based on a circular shape of the filter wheel would not have overcome the filter wheel teachings of these other cited

references.

Extrinsic Evidence. Finally, Admesy cites a purported dictionary definition of the term “wheel” that appears to refer to an automobile or bicycle wheel. Admesy’s Br. at 20 (“a circular frame with a hub at the center for attachment to an axle, about which it may revolve and bear a load”). As discussed above, such an automobile or bicycle wheel may have a circular structure implied on the basis of its locomotive function, but a “*filter wheel*” is not so constrained. Admesy’s cited dictionary definition also contradicts the intrinsic evidence which does not limit the filter wheel to a circle, and as such, it would be error to rely on the dictionary definition. *See Lighting Ballast Control LLC v. Philips Elecs. N. Am. Corp.*, 790 F.3d 1329, 1338 (Fed. Cir. 2015).

Accordingly, the Court should rule that “filter wheel” should be interpreted according to its plain and ordinary meaning.

B. The claimed “filter assembly” need not include a filter or parts “fitted together.”

The ’652 patent’s claims, specification, and file history also do not describe or suggest that the claimed filter assembly must include a filter or parts fitted together. The plain and ordinary meaning of a filter assembly is a unit consisting of component parts that is configured to hold one or more filters. Admesy’s limitations have no intrinsic or extrinsic evidentiary support.

Claims. Admesy argues that the presence of the word “filter” as an adjective modifying “assembly” requires that a “filter assembly” include a filter or else the filter modifier would have no meaning. Admesy’s Br. at 12. This conclusion is incorrect. A

filter assembly may be configured to hold a filter without actually including a filter, just as a filter wheel—according to Admesy’s proposed construction—may be configured to hold a filter without actually including a filter. Additionally, or alternatively, a filter assembly may be configured to facilitate filtering without including a filter, similar to how an image sensor detects information or light that can be used by a downstream processor to form an image, but the sensor itself neither captures nor forms an image. As discussed previously and below, there is no support in the intrinsic record for Admesy’s constrained reading, and it would be improper to narrow the term beyond the full scope of its plain and ordinary meaning. *See Wasica Fin. GmbH v. Cont’l Auto. Sys., Inc.*, 853 F.3d 1272, 1281 (Fed. Cir. 2017).

Admesy quotes a lot of claim language, but none of it supports importing the “including a filter” limitation that Admesy seeks. *See* Admesy’s Br. at 13–14. For example, claim 1 recites that the filter assembly “comprises a filter wheel” and carries a reflector, but that does not support Admesy’s conclusion that “the component parts of the ‘filter assembly’ recited in claim 1 include a filter.” *Id.* at 13 (citing Ex. A, 8:61–65). In addition, dependent claim 2 recites that “[t]he imaging device” (as opposed to “the filter assembly”) of claim 1 “further compris[es] a filter carried by the filter wheel,” suggesting that the filter assembly carries but does not include the filter. As for method claims 18 and 23, dependent claim 23’s recitation of “moving the filter assembly to align a filter” does not require that a filter assembly include a filter, just as a water wheel moving water to another position does not suggest that water is necessarily part of a water wheel.

Admesy does not and cannot cite to any support in the claims for adding a “fitted together” requirement that would deviate from the plain meaning of the term “assembly,” which “ordinarily means ‘a collection of parts so assembled as to form a complete machine, structure, or unit of a machine.’” *See* Radiant Br. at 13 (quoting *Kegel Co. v. AMF Bowling, Inc.*, 127 F.3d 1420, 1427 (Fed. Cir. 1997)). As such, the “fitted together” narrowing limitation, too, should be rejected.

Specification. Admesy contends that the stated purpose of the invention of the ’652 patent supports its construction, but it does not cite anything from the specification’s description of that purpose that would require the claimed filter assembly to include a filter and parts fitted together. Admesy’s Br. at 14–16. Admesy cites portions of the specification to note that “the reflector or mirror may be carried by a filter assembly” and that in a specific embodiment “a filter wheel carr[ies] one or more filters,” but these excerpts from the specification support the opposite conclusion—that the reflector and filter are *separate components* from the filter assembly that are merely *carried by* the filter assembly. *Id.* at 15–16. Admesy’s conclusion that the purpose of the invention was to “add” a reflector or mirror to the filter assembly is Admesy’s own gloss and not language used in the specification, which refers only to the filter assembly “carrying” a reflector or mirror. *Id.* In any case, whether the filter assembly carries a *reflector* is wholly unrelated to whether “filter assembly” should be construed to include a *filter*. The purpose of the invention described in the specification does not define the filter assembly to include a filter, and it says nothing about parts being fitted together. Indeed, the specification uses the term “assembly” to

describe a collection of parts that are decidedly not fitted together, but work together for a common purpose. *See* Radiant’s Br. at 13–14 (discussing configuration of “pickoff system or subassembly” and citing Ex. A at 6:19–63; Figs. 7A–7B).

Extrinsic Evidence. Admesy makes no attempt to argue that the intrinsic evidence supports importing its “fitted together” limitation into the filter assembly term. Instead, it points to definitions in the extrinsic evidence, most of which do not reference fitting together. Admesy’s Br. at 13. The first definition comes from a Western District of North Carolina opinion referring to “connected parts” without requiring that the parts must be physically coupled and without excluding parts that are functionally connected. *Id.* The second definition, from a technical dictionary, is also consistent with the Federal Circuit’s understanding of the ordinary meaning of “assembly” to mean a “collection of parts.” *Id.* Ex. F at 139 (“A unit containing the component parts of a mechanism, machine, or similar device.”); *Kegel Co.*, 127 F.3d at 1427 (“a collection of parts so assembled as to form a complete machine, structure, or unit of a machine”). Neither the Federal Circuit’s nor the technical dictionary’s definitions support any “fitted together” requirement. The only definition to mention “fitting together” is a general-purpose dictionary defining the word verb form of “assembly;” the noun form refers more broadly to “a collection of parts so assembled.” *Id.* Ex. G at 74. Technical dictionaries take precedence over general dictionaries, *Transclean Corp. v. Bridgewood Services, Inc.*, 290 F.3d 1364, 1375 (Fed. Cir. 2002), and any conflict among the extrinsic evidence further counsels against importing limitations not supported by the claims or specification.

III. CONCLUSION

For the foregoing reasons, Radiant respectfully requests that the Court reject Admesy's proposed constructions for the terms "filter assembly" and "filter wheel" and adopt their plain and ordinary meaning.

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Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that a true and correct copy of the above and foregoing document has been served February 10, 2023 to all counsel of record, via the Court's CM/ECF system.

/s/ Theresa H. Nguyen

Theresa H. Nguyen